

TURBINE METERS

Natural gas metering – a question of the right device

When the natural gas era began in the middle of the 1960s, the most highly concentrated gas distribution network in the world was built in Europe. In large gas transmission stations as well as in smaller metering systems, turbine meters proved to be the number 1 metering instrument. Generally speaking, the use of turbine meters stops when it comes to intermittent flow in smaller heating plants where measuring errors might occur.

Turbine meters have proved to be reliable and accurate natural gas metering devices. Research and development in the last decade has concentrated on minimising the effect of errors caused by the station systems themselves and optimising accuracy at high pressures. The current focus is on data transfer and communication.

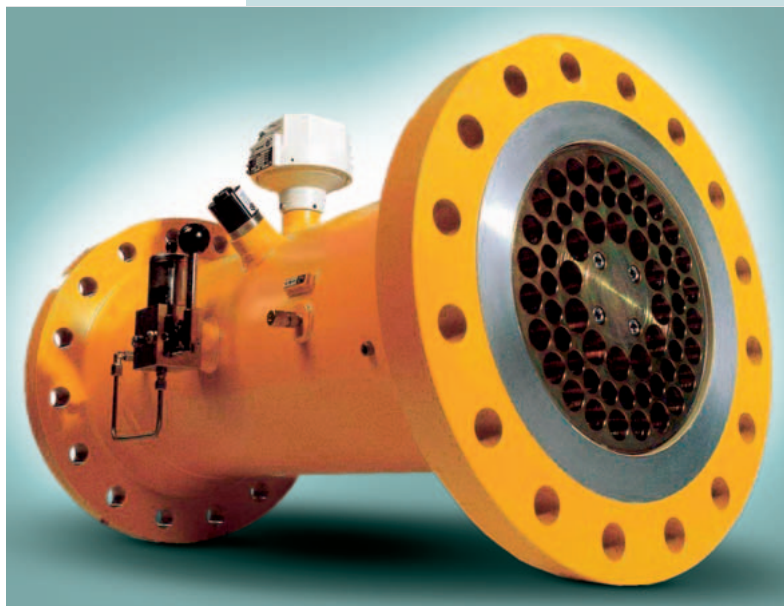


Fig. 1: SM-RI turbine meter

Elster-Instromet covers the complete range, offering the best solution for each application. All of the turbine meters comply with European standards and International guidelines. In general, the installation length upstream of the turbine is only 2D, which saves on installation costs.

The SM-RI series (see fig. 1) is designed for use at pressures up to 225 bar. The meters can also be used on gas platforms.

The TRZ2 series is equipped with a measuring cartridge, which is pre-calibrated and can be exchanged on site (see fig. 2). Re-calibration and performance upgrades can easily be carried out quickly and reliably. In many cases this has proved to be a highly economical solution.

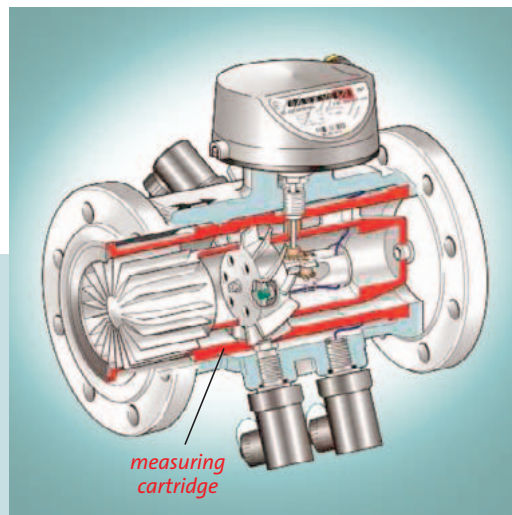


Fig. 2: TRZ2 with measuring cartridge

As a result of remote data transfer, it is no longer necessary to visit metering points as regularly as in the past. Elster-Instromet turbine meters with their automatic oil pump (see fig. 3) help to save costs further as an inspection of the oil pump on site is not required.

Several index solutions are available for the entire range of turbine meters. A very good example of this is the S1 Encoder, which transmits the mechanical index readout (see fig. 4).



Fig. 3: Automatic oil pump



Fig. 4: Turbine meter with Absolute-ENCODER S1

The worldwide peak of natural gas as a primary energy source is still to come. Our wide range of turbines provides the best possible solutions for a variety of applications both now and in the future.